PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6:

A61F 2/06

A3

(11) International Publication Number:

WO 98/22159

(43) International Publication Date:

28 May 1998 (28.05.98)

(21) International Application Number:

PCT/US97/20695

(22) International Filing Date:

7 November 1997 (07.11.97)

(30) Priority Data:

60/029,936

7 November 1996 (07.11.96)

717

(71) Applicant (for all designated States except US): MEDTRONIC INSTENT INC. [US/US]; 6271 Bury Drive, Eden Prairie, MN 55346 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): GLOBERMAN, Oren [IL/IL]; Yericho 14, 58543 Holon (IL). BEYAR, Mordechay [IL/IL]; Haeshcolit Street 5, 38900 Caeseria (IL). BEYAR, Rafael [IL/IL]; Watson Street 8, 34751 Haifa (IL).

(74) Agents: DIPPERT, William, H. et al.; Cowan, Liebowitz & Latman, P.C., 1133 Avenue of the Americas, New York, NY 10036-6799 (US). (81) Designated States: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, ARIPO patent (GH, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).

Published

With international search report.

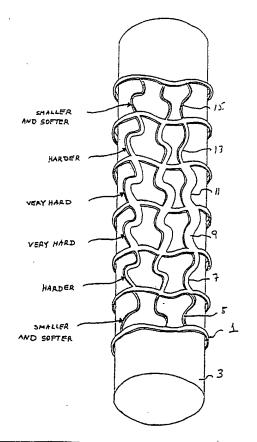
Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

(88) Date of publication of the international search report:
9 July 1998 (09.07.98)

(54) Title: VARIABLE FLEXIBILITY STENT

(57) Abstract

A stent (1) is provided for having variable flexibility and stiffness along its length. The stent (1) comprises portions (5, 7, 9, 11, 13, 15) of the stent having different bending and durability characteristics, and may be fabricated, using any of a variety of methods out of any of a variety of materials.



FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AL	Albania	ES	Spain	LS	Lesotho	SI	Slovenia
AM	Armenia	FI	Finland	LT	Lithuania	SK	Slovakia
ΑT	Austria	FR	France	LÜ	Luxembourg .	SN	Senegal
ΑŬ	Australia	GA	Gabon	LV	Latvia	SZ	Swaziland
ΑZ	Azerbaijan	GB	United Kingdom	MC	Monaco	TD	Chad
BA	Bosnia and Herzegovina	GE	Georgia	MD	Republic of Moldova	TG	Togo
BB	Barbados .	GH	Ghana	MG	Madagascar	TJ	Tajikist an
BE	Belgium	GN	Guinea	MK	The former Yugoslav	TM	Turkmenistan
BF	Burkina Faso	GR	Greece		Republic of Macedonia	TR	Turkey
BG	Bulgaria	HU	Hungary	ML	Mali	TT	Trinidad and Tobago
ВJ	Benin	ΙE	Ireland	MN	Mongolia	UA	Ukraine
BR	Brazil	IL	Israel	MR	Mauritania	UG	Uganda.
BY	Belarus	IS	Iceland	MW	Malawi	US	United States of America
CA	Canada	IT	Italy	MX	Mexico	UZ	Uzbekistan
CF	Central African Republic	JР	Japan	NE	Niger	VN	Viet Nam
CG	Congo	KE	Кепуа	NL	Netherlands	YU	Yugoslavia
CH	Switzerland	KG	Kyrgyzstan	NO	Norway	zw	Zimbab we
CI	Côte d'Ivoire	KP	Democratic People's	NZ	New Zealand		
CM	Cameroon		Republic of Korea	PL	Poland		
CN	China	KR	Republic of Korea	PT	Portugal		
CU	Cuba	KZ	Kazakstan	RO	Romania		
CZ	Czech Republic	LC	Saint Lucia	RU	Russian Federation		
DE	Germany	LI	Liechtenstein	SD	Sudan		
DK	Denmark	LK	Sri Lanka	SE	Sweden		
EE	Estonia	LR	Liberia	SG	Singapore		

INTERNATIONAL SEARCH REPORT

International application No. PCT/US97/20695

A. CL.	ASSIFICATION OF SUBJECT MATTER								
IPC(6)	:A61F 2/06								
US CL :623/1 According to International Patent Classification (IPC) or to both national classification and IPC									
									LDS SEARCHED
Minimum documentation searched (classification system followed by classification symbols)									
U.S. :	623/1, 11, 12								
Documents	Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched								
	are mediated in the fields searched								
Electronic	Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)								
C. DOCUMENTS CONSIDERED TO BE RELEVANT									
									Category*
	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.							
X	US 5,449,373 A (PINCHASIK) 12 September 1995, entire document.	1-3, 5, 7, 8, 10, 11							
X	US 5,443,496 A (SCHWARTZ et al) 22 August 1995, entire document.	1-3, 6-8, 11							
	·								
	•								
4									
Furthe	Further documents are listed in the continuation of Box C. See patent family annex.								
i	Special categories of cited documents: T' later document published after the international filture date or o								
"A" docu	ment defining the general state of the art which is not considered date and not in conflict with the application of particular relevance the principle or theory underlying the in	tion but cited to understand							
	or document published on or after the international filing date "X" document of particular relevance; the considered novel or cannot be considered novel or cannot be considered.	claimed invention cannot be							
_ cired	to establish the publication date of another citation or other	1							
}	ment referring to an oral disclosure, use, exhibition of other combined with one or more other such de-	considered to involve an inventive step when the document is combined with one or more other such documents, such combination							
P docu	being obvious to a person skilled in the ment published prior to the international filing date but later than	art '							
	ctual completion of the international search Date of mailing of the international search								
30 APRIL	0 • ••••	0.000							
Commissione	iling address of the ISA/US r of Patents and Trademarks Authorized officer	0							
Box PCT Washington,	D.C. 20231 MIKE MILANO	MIKE MILANO							
Facsimile No. (703) 305-3230 Telephone No. (703) 308-2496									
Form PCT/ISA	√210 (second sheet)(July 1992)★								